OXFORD ECONOMICS

OCTOBER 2025

TIPPING POINT: THREATS TO JOBS AND GROWTH IN EUROPE'S CHEMICAL SECTOR

A REPORT FOR INEOS BY OXFORD ECONOMICS

EMBARGOED REPORT NOT FOR PUBLICATION UNTIL AFTER: 00:01 Thursday 9th October

INEOS

ABOUT OXFORD ECONOMICS

Oxford Economics was founded in 1981 as a commercial venture with Oxford University's business college to provide economic forecasting and modelling to UK companies and financial institutions expanding abroad. Since then, we have become one of the world's foremost independent global advisory firms, providing reports, forecasts, and analytical tools on more than 200 countries, 100 industries, and 8,000 cities and regions. Our best-in-class global economic and industry models and analytical tools give us an unparalleled ability to forecast external market trends and assess their economic, social, and business impact.

Headquartered in Oxford, England, with regional centres in New York, London, Frankfurt, and Singapore, Oxford Economics has offices across the globe in Abu Dhabi, Belfast, Chicago, Dubai, Dublin, Hong Kong, Los Angeles, Mexico City, Milan, Paarl, Paris, Philadelphia, Sydney, Tokyo, and Toronto. We employ 700 staff, including more than 450 professional economists, industry experts, and business editors—one of the largest teams of macroeconomists and thought leadership specialists. Our global team is highly skilled in a full range of research techniques and thought leadership capabilities from econometric modelling, scenario framing, and economic impact analysis to market surveys, case studies, expert panels, and web analytics.

Oxford Economics is a key adviser to corporate, financial, and government decision-makers and thought leaders. Our worldwide client base now comprises over 2,500 international organisations, including leading multinational companies and financial institutions; key government bodies and trade associations; and top universities, consultancies, and think tanks.

EXECUTIVE SUMMARY

- Between 2019 and 2025Q2, the European chemical sector's output declined significantly. It has contracted by 30% in the UK, 18% in Germany, 12% in France, and 7% in Belgium. Output levels have been hit by reduced price competitiveness due to higher gas and electricity prices than elsewhere, higher environmental and other regulatory costs, and excess global capacity, largely driven by China.
- The decline in output levels has led to many firms to close plants which has led to job losses. Annual accounting data show that between 2019 and 2024, household names like BASF, have cut their European employment by 8% meaning a loss of more than 5,000 jobs while Borealis have cut their European employment by 15% with a further loss of one thousand jobs.[1,2] The polymer segment of the chemical industry is under particular threat with 40% of EU ethylene capacity facing the threat of closure. Closures are causing thousands of job losses and will lead to substantial knock-on impacts for the wider chemicals industry. Once closed, sites will not reopen due to the high capital costs required.
- Structural pressures—chiefly high energy and carbon costs alongside regulatory and permitting burdens—are undermining the sector's viability. Falling output levels and lower profitability is causing European chemical firms to cut their investment relative to their global competitors. Between 2019 and 2024, the average annual growth in European chemical firms' investment spending was half the rate of their US counterparts (1.5% versus 3.0%). This trend is projected to continue over the next decade. This will further adversely impact the sector's competitiveness.
- The chemical sector is heavily interwoven with the European economy and directly employs 1.2 million people. For every job in the sector, it supports between 3.0 to 4.6 jobs elsewhere in Europe along its supply chain and through staff spending their wages in the consumer economy.
- Emissions data from Oxford Economics suggest that, if European chemicals production is replaced by imports from China and the US, total carbon emissions will rise. Chinese and US chemical industries emit around threefold and twofold more carbon for the same volume of output, respectively, than those in Europe. The greater distances needed to transport the imports will also add to the greenhouse gas emissions.
- European policymakers face a critical decision: act decisively now to safeguard this vital strategic industry or risk its irreversible decline.

THE EUROPEAN CHEMICAL SECTOR

As the continent's fourth largest industrial sector, the chemical sector is an integral part of the European economy. Prior to the Covid-19 pandemic in 2019, the sector contributed €165 billion of gross value added to the economy and employed 1.2 million people in Europe (i.e. EU27+UK). Over half of European employment in the sector is situated in Germany (396,000), France (212,000), and the UK (105,000).[3]

Beyond its economic and employment contributions, the chemical sector serves as a critical backbone for numerous other industries. As the foundational "building blocks" for a vast array of products and processes, chemicals are indispensable to sectors such as agriculture, pharmaceuticals, defence, manufacturing, and construction.

1 BASF annual reports.
2 Borealis Group annual reports.
3 Eurostat. 2025. Structural Business Statistics and ONS. 2025. Business Register and Employment Survey.

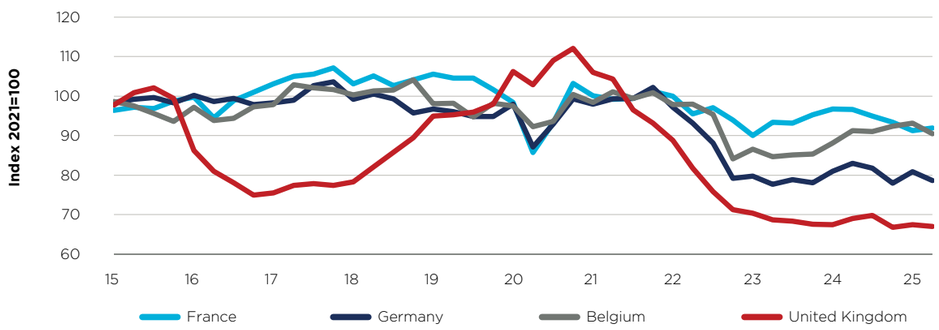
THE CONCERNING DECLINE OF THE EUROPEAN CHEMICALS SECTOR

In recent years, Europe's chemical sector has seen production decline to the lowest for a decade. In 2025Q2, output in the UK and Germany was 30% and 18% below its level in 2019 (the year before the pandemic) (Fig 1). While the sector has fared marginally better in France and Belgium, production still stands 12% and 7% below 2019 levels, respectively.

The European Commission's 2025Q3 business survey showed that chemical firms in Belgium, Germany, and France were operating at 72%, 73%, and 79% of full capacity respectively. Given the greater scale of the decline in chemical firms' output in the UK, it is likely they are producing at even lower levels of their potential.

The decline in output levels has also led to many firms to close plants, which has led to job losses. In 2023–2024, more than 11 million tons worth of capacity have been announced to be closed in Europe, affecting 21 major sites.[4] Annual accounting data show that between 2019 and 2024, household names like BASF, have cut their European employment by 8% meaning a loss of more than 5,000 jobs while Borealis has cut its European employment by 15% with a further loss of 1,000 jobs.[5,6] The polymer segment of the chemical industry is under particular threat, with at least 10 chemical crackers either closed or scheduled to be shut down between 2022 and 2027.[7] According to Wood Mackenzie, up to 40% of EU ethylene capacity faces a high or medium threat of closure.[8] Closures are causing thousands of jobs losses and will lead to substantial knock-on impacts for the wider chemicals industry. Once closed, a site will not reopen due to the high capital costs required and, in some cases, local opposition.

Fig. 1: The chemicals sector's production levels in four European countries



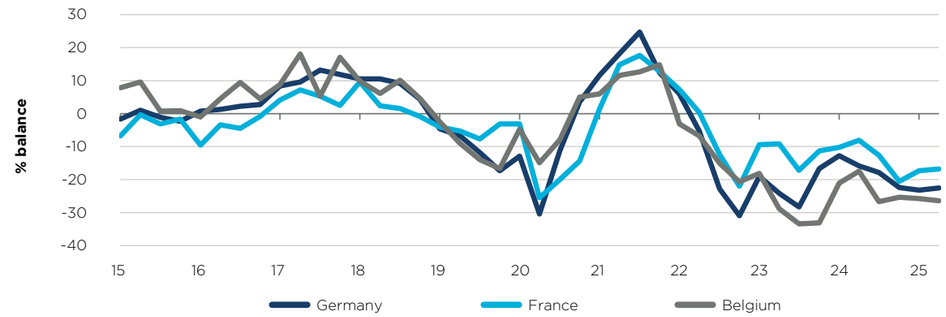
Source: Oxford Economics

Chemical crackers create essential molecules that serve as building blocks for the wider chemicals industry. Downstream chemicals sectors are typically heavily integrated with chemical crackers, frequently operating within the same industrial cluster as a cracker. These industrial clusters share resources such as utilities, transport, and waste management systems. As such, any closures of crackers will lead to significant production declines in the wider chemical industry as it will become uneconomic to continue production at cluster sites.

Europe's chemical firms are increasingly pessimistic. The European Commission's survey suggests business confidence has deteriorated since 2022 and is now at its lowest since the Covid-19 pandemic (Fig 2). The same survey suggests more chemical firms expect to cut rather than increase employment levels in all three EU Member States.

4 CEFIC 2025, The Competitiveness of the European Chemical Industry.
5 BASF annual reports.
6 Borealis Group annual reports.
7 Chemistry World. July 2025. Two more European crackers to close.
8 Offshore Engineer, July 2025. The Chemical industry is looking for a way to survive. This includes shutdowns that have been announced as early as late 2024.

Fig. 2: European chemicals firms' confidence in their outlooks for the months ahead



Source: European Commission; Oxford Economics

KEY DRIVERS OF THE DETERIORATION IN THE EUROPEAN CHEMICAL SECTOR'S PERFORMANCE

There are three key drivers behind the European chemical industry's underperformance and weak outlook: energy price gaps; regulatory pressures; and foreign competition.

1. Energy price differentials

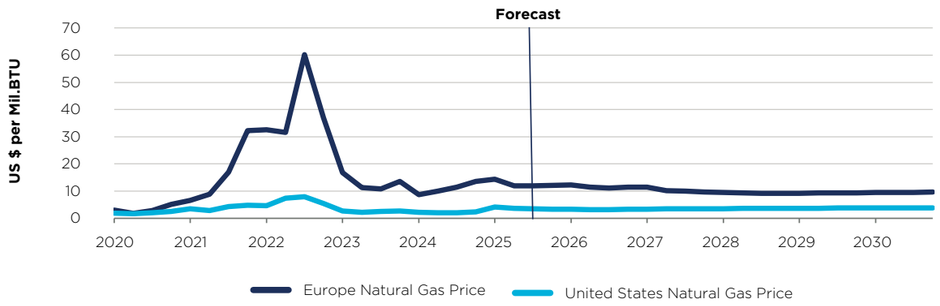
Divergent energy prices between Europe and competitor countries have eroded the cost competitiveness of European chemical producers. In 2025Q3, European gas prices are four times higher than in the US (Fig 3). At their peak in 2021Q1, they were seven times higher than in the US. Chemical producers use natural gas as both an energy source and feedstock. Production is typically very energy intensive; for example, in the case of ammonia, feedstock costs are estimated to amount to 85% of production costs.[9]

We quantify the impact of higher energy prices on European chemical companies' price competitiveness by combining data on industrial energy price and emissions intensity to derive cross country energy costs per euro of value-added output generated. Using 2023 data we estimate that European producers using electricity as an energy source must pay 12 cents to 21 cents more than US producers for every euro of output they produce. Similarly, if European producers use natural gas as an energy source, they pay between 7 cents to 11 cents more than a US producer would per euro of output they produce (Fig 4). Moreover, in addition to being an energy source, natural gas is also an essential input to many chemical production processes. As such, energy price differentials mean that in practice, European producers face even higher relative production costs than our estimates suggest.

> Any closures of chemical crackers will lead to significant production declines in the wider chemical industry as it will become uneconomic to continue production at industrial clusters.

9 European Commission, 2016. Production Costs from energy-intensive industries in the EU and third countries.

Fig. 3: European and US benchmarks for natural gas prices



Source: Oxford Economics

Fig. 4: Additional energy costs paid by European chemical firms relative to their US counterparts (cents per euro of value added output)

	Germany	France	Belgium
Industrial electricity costs	17.7	11.9	20.1
Industrial natural gas costs	11.0	10.0	6.8

Source: ONS, Oxford Economics

Natural gas is by far the most widely used energy source and raw material essential to the chemicals sector. We forecast European gas prices will remain just under three to four times higher than in the US over the next five years (Fig 3). As a result, European chemical producers will continue to be disadvantaged in global markets. This is partly a result of Europe's reliance on LNG imports which are both more expensive and volatile than the natural gas supplies directly available via pipeline in other jurisdictions such as the US.

Moreover, China utilises discounted Russian gas to support its industry and chemical production.[11,12] The Power of Siberia Pipeline opened in December 2019 and now delivers Russian natural gas from eastern Siberia into northeast China with flows expected to be around 38 billion cubic metres a year in 2025.[13] This cheap source of energy and raw material is further undermining the competitiveness of the UK and European chemicals sector.

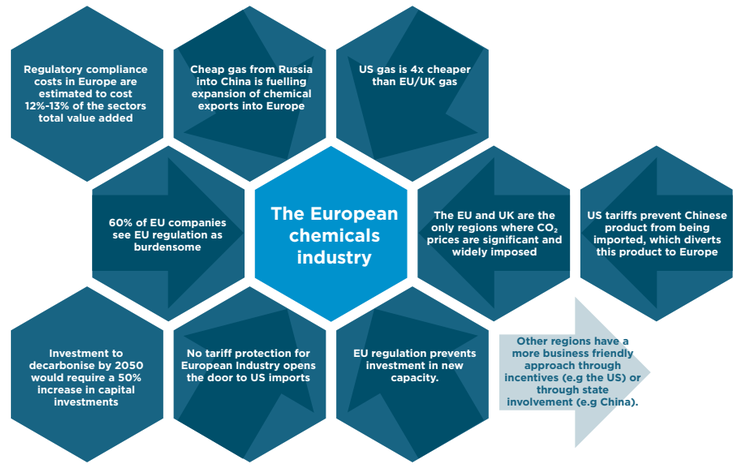
The EU's Clean Industrial Deal (February 2025) includes an Affordable Energy Action Plan designed to lower energy bills and facilitate the green transition. Ambitious plans are in place, but concrete reductions in prices have yet to materialise. Industrial electricity prices for European producers are currently between two and three times higher than industrial gas prices.[14] As such, unless industrial electricity costs fall substantially, higher rates of electrification (as necessitated by environmental regulation) will further erode the European chemicals sector's competitiveness relative to other jurisdictions.

10 The data are for 2023. Emission intensity data are only available for the chemicals and pharmaceutical sector. As the pharmaceuticals component of this sector is the less emissions-intensive portion, these estimates likely underestimate energy cost differentials in the chemicals sector.
11 CEPA, 2025, Going Steady: China and Russia's Economic Ties are Deeper than Washington Thinks.
12 Business Insider. Russia will sell natural gas to China at almost a 50% discount compared to European buyers
13 Reuters, 2023. Russia working on infrastructure design for far eastern gas pipeline to China
14 Department for Energy Security and Net Zero. International Industrial Energy Prices. Accessed August 2025.

2. Environmental regulation and other regulatory pressures

The stringent regulatory environment in Europe in particular the cost of CO_2 emissions, impose significant additional costs on European chemical companies.[15] These costs are not paid by companies exporting into the EU or UK, from the rest of the world. The significant additional costs on top of higher energy costs puts additional pressure on EU and UK companies attempting to compete with global peers. Moreover, the uncertainty and complexity surrounding industrial policies in both the EU and UK imposes further costs for chemical companies trying to compete in an already challenging economic environment tipped in favour of US and Chinese companies.

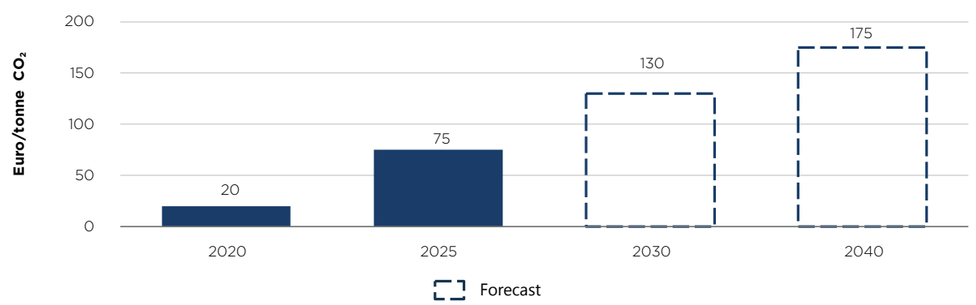
Fig. 5: Schematic of environmental pressures on the European chemical sector[16]



Source: Oxford Economics

The EU's and UK's Emissions Trading System aims to lower greenhouse gas emissions to help the transition to net zero. It requires firms to pay for allowances to emit CO_2. That price increased from €20 to €75 per tonne of CO_2 emitted between 2020 and 2025 (Fig 6). This has imposed significant additional costs on chemical producers in Europe. It is forecast that carbon prices in Europe will increase further, more than doubling by 2040.[17]

Fig. 6: EU ETS price

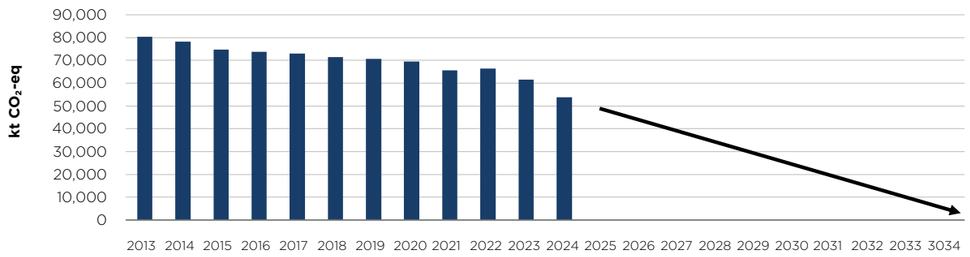


Source: ERT, Oxford Economics

15 Current market price: As of early September 2025, EU carbon permits were trading at around €76.90 per tonne.
16 Oxford Economics estimates, CEFIC 2025, The Competitiveness of the European Chemical Industry.
17 ERT 2024, Competitiveness of European Energy-Intensive Industries.

Carbon-emitting companies do receive some allowances for free. The amount of free allowances has been progressively reduced, especially in the last couple of years (Fig 7). The reduction has further increased the sector's costs. Free allowances in the EU and UK are scheduled to be fully phased out by 2034.

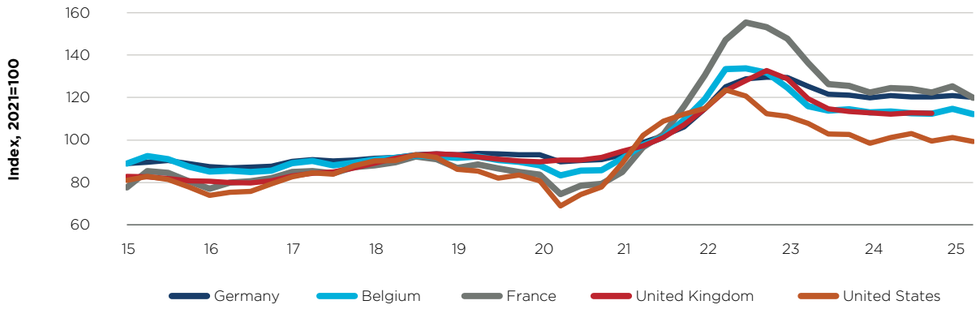
Fig. 7: Freely allocated emissions allowances for chemical production in EU 27



Source: ERT, Oxford Economics

As a result of the increase in energy and regulatory costs, the chemical sector in Europe and the UK increased their output prices after 2020, with the speed of increase gathering pace after the Russian invasion of Ukraine in February 2022 (Fig. 8). Thanks to the smaller growth in energy prices in the US, their American-based counterparts increased their output prices by significantly less, resulting in a significant deterioration in European chemical producers' price competitiveness.

Fig. 8: The chemical sector's output prices in Europe and the US



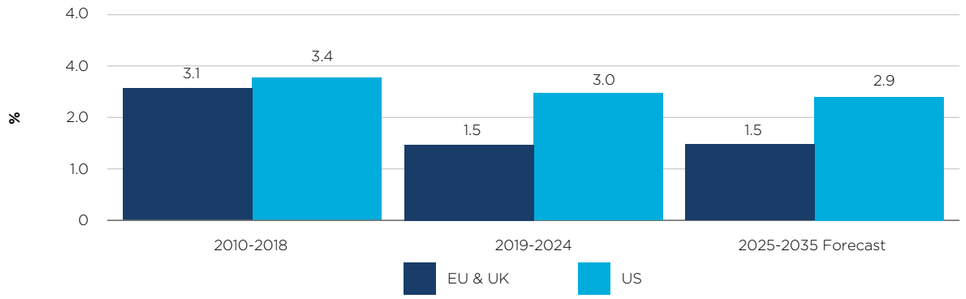
Source: Oxford Economics

Looking ahead, investment costs associated with the chemicals sector decarbonising (which includes electrification) are huge. It is estimated it will require €800 billion–€1 trillion of investment for the European chemicals sector to meet net zero goals.[18,19] We estimate these costs represent 15% of the sector's annual gross value added (if costs are spread out evenly to 2050) or a 50% increase in the sector's expected capital expenditure. As other jurisdictions do not have such ambitious decarbonisation targets, these investment costs represent a significant competitive disadvantage for European chemicals producers and put considerable additional pressure on margins.

18 Accenture and NexantECA, The chemical industry's road to net zero.
19 ERT. Competitiveness of European Energy-Intensive Industries.

In reality, we expect that investment growth in Europe will be significantly lower than in other jurisdictions. Significantly higher costs as a result of higher energy and carbon costs has led to low capacity utilisation and poor profitability, which has decreased European chemical firms incentives to invest in the region. In the last five years, investment growth in the chemicals sector in Europe has been half the rate of the US (1.5% versus 3.0%), a gap we forecast will persist in the next decade (Fig 9). Weak recent and projected investment will continue to constrain the sector's growth potential relative to its global peers, threatening jobs and economic growth in Europe. Eight of the world's 10 largest chemical companies are scaling back or withdrawing from Europe, while all of the top 10 US producers are investing and expanding.[20]

Fig. 9: Annual growth in the chemical sector's investment in Europe and the US

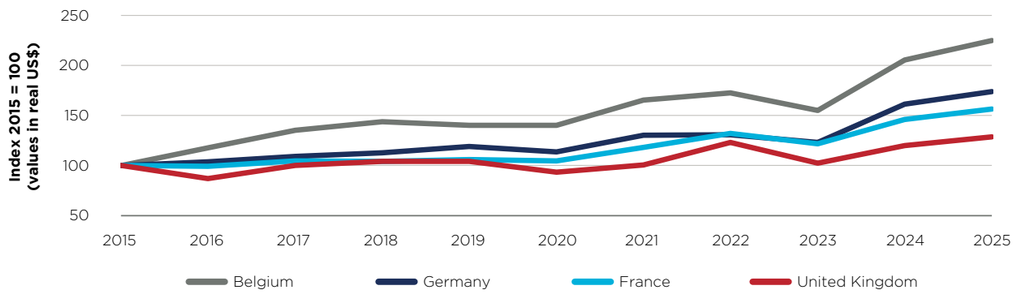


Source: Oxford Economics

3. Rising foreign competition

While Europe's chemical producers output is at its lowest for a decade, chemical imports into European countries have increased substantially. Since 2019, total chemical imports into Belgium have increased by 60% whilst imports into Germany and France have increased by nearly 50% (Fig. 10). In March 2025, the European Commission warned of a "significant and potentially injurious increase in chemical imports" into the EU, particularly in ethylene and ammonia, linked to overcapacity in Asia.[21]

Fig. 10: European countries' imports of chemical products



Source: Oxford Economics

20 Analysis of company websites, announcements and annual reports.
21 European Commission, March 2025. Commission starts tracking imports of industrial chemicals rapidly filling the EU market.

Several factors explain why Europe is increasingly reliant on imports of chemicals. While energy price differentials and environmental cost and regulation have made Europe's chemical sector less competitive, countries such as China have significantly ramped up their domestic chemical capacity. Our estimates suggest that both Chinese investment and real output in the chemicals sector have grown at approximately 9% a year between 2019 and 2024. This substantial growth in output has been fuelled by cheap Russian gas/crude oil. Moreover, while capacity has increased substantially, the Chinese economy faces relatively weak domestic demand, with chemical inventories currently 51% higher than 2019 levels. As such, Chinese producers' focus has inevitably shifted to markets such as Europe with Chinese imports of chemical products into the EU increasing by 34% between 2019 and 2024. Certain products such as fertilisers have experienced particularly strong growth, with Chinese fertiliser imports into the EU more than tripling in this time period. Moreover, China's considerable expansion in chemicals has prompted Middle Eastern and US chemical companies to shift their export focus towards European markets.

Using 2023 data we estimate that European chemical producers using electricity as an energy source must pay 12 to 21 cents more than US producers for every dollar of output they produce. Similarly, if European producers use natural gas as an energy source, they pay between 7 to 11 cents more.

Tipping Point: Threats to Jobs and Growth in Europe's Chemical Sector

ADDITIONAL THREATS TO COMPETITIVENESS

The recent EU-US trade agreement: a further blow to the chemicals industry

The deal, effective from 1 August 2025, means EU chemical firms wanting to export to the US will face a 15% tariff; this is more than double the previous 6.5% tariff applied. In contrast, US chemical producers now face a zero tariff when exporting into the EU while the previous tariff was 6.5%. These changes mean European chemical producers will find it increasingly difficult to export competitively, whilst at the same time facing increased competitive pressures in their own internal market. In addition, tariffs protecting US business mean Chinese product that was destined for US markets will now be redirected into Europe.

An unlevel playing field in the transition to net zero

European commitments to reach net zero by 2050 further cloud the competitive outlook for chemical manufacturers. As the EU and UK are likely to continue to implement decarbonisation measures alone, it is likely that chemicals production will be relocated to jurisdictions without regulations (carbon leakage). Although the EU and UK have announced that they will be introducing Carbon Border Adjustment Mechanisms (CBAM) to mitigate against carbon leakage, limitations with the scheme mean we still expect some degree of carbon leakage will occur.[22]

The EU and UK are the only regions where carbon prices are significant and widely imposed. Carbon prices in Europe are expected to more than double by 2040.

22 The proposed CBAM in the UK and EU currently only has limited coverage with only certain fertilisers currently covered. It is unclear how much of the chemicals sector will be covered in the future. Moreover, there are concerns that a CBAM will be circumvented as well as reduce EU export competitiveness. For more details on limitations, see CEFIC 2025, The Competitiveness of the European Chemical Industry.

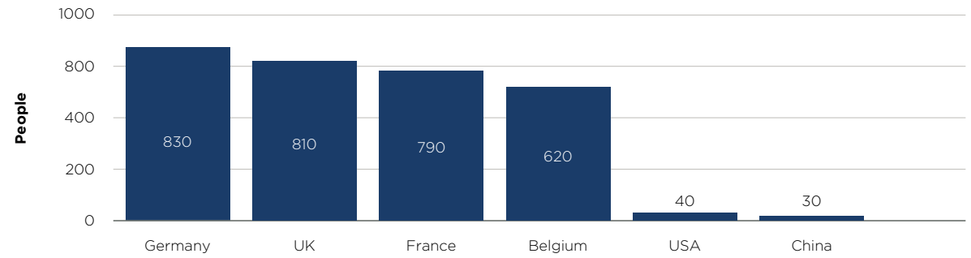
IMPLICATIONS OF A DECLINE IN THE EUROPEAN CHEMICALS SECTOR

The decline of the European chemicals sector has large economic, strategic, and environmental consequences.

Economic

Eurostat reports that the sold production (i.e., domestic production value) of chemicals and related products in the EU reached €785 billion in 2023. The sale of each €100 million of chemical products produced by any of the four major chemical producing countries in the EU and UK supports between 620 to 830 people in employment around Europe (Fig. 11). These people work in the chemical sector itself, its supply chain, or the consumer economy where chemical workers and those in the supply chain spend their wages. By comparison, if production moved to the US or China, the purchase of €100 million of imported chemicals would result in 580–790 fewer jobs being supported in the EU and UK as import activities are only estimated to support 30–40 people through the use of European suppliers and consumer spending impacts.

Fig. 11: Number of jobs supported in the EU and UK by the spending of €100 million on chemical products made in different countries



Source: Oxford Economics

The impact of the European chemical sector on the rest of the economy is further demonstrated by its multipliers (Fig. 12). For every €1 million the sector contributes to GDP, it supports another €1.1 to €1.4 elsewhere within the domestic economy. Its procurement and wage consumption impacts suggest it supports an additional €0.4 to €1.0 billion to other European countries GDP. Similarly, every job in the four countries' chemical sectors supports 3.0 to 4.6 jobs around the rest of Europe. For every €1 million the sector pays in taxes, it supports between €1.6 and €2.1 million elsewhere in Europe.

Fig. 12: The four countries' chemical sector's Type II multipliers[23]

	Gross value added		Employment		Tax	
Belgium	2.1	3.1	3.3	5.6	2.3	3.0
France	2.4	3.0	3.2	4.0	2.2	2.6
Germany	2.2	2.7	3.0	3.8	2.2	2.6
UK	2.4	2.8	3.3	4.0	2.4	3.1

Domestic country multiplier | EU & UK multiplier

Source: OECD, Oxford Economics

23 The type II multipliers show the economic activity stimulated by the chemical sector's procurement and the payment of wages which are onward spent in the consumer economy. One has to be subtracted from the numbers shown to get the figures quoted in the text, this reflects the inclusion of the chemical sector itself in the numerator of the calculation.

Strategic

Chemicals are essential to critical national infrastructure, healthcare, transport, defence, construction, and nutrition. Increased import dependence has significant implications for national security.

Healthcare:

Chlorine is critical for water treatment. Its hazardous nature makes it very challenging to transport across borders.

Solvents are essential for the production of medicines and vaccinations.

Polymers are essential in operating theatres and patient care.

Energy and Telecommunications:

500 different process chemicals are required to manufacture a single semiconductor chip.[24]

Transformer oils from the petrochemicals industry are essential for the reliable operation of energy grids.

Defence:

Carbon fibre is necessary for the production of lightweight transportation and defence systems

Polymer composites are used in applications such as land systems, aircraft and weapons

Environmental

The decline of the European chemicals sector means that Europe will increasingly rely on imports of chemicals. These chemicals will be produced in a more emissions intensive-manner in economies such as China, the US, and the Middle East. According to the European Environment Agency (EEA), the EU-27 chemical industry emitted about 155 million tonnes CO_2-equivalent (Mt CO_2-eq) in 2021. Emissions data suggest that chemicals production would produce twice the carbon emissions if production was in the US and three times the carbon emissions if production took place in China.[25] Additional emissions will also result from the greater distances the imports are required to travel. Therefore, paradoxically, the EU's stringent environmental regulations may raise global emissions.

THE UK AND EUROPEAN CHEMICALS SECTOR IS AT A TIPPING POINT

Over the past year, Europe's chemical industry has faced widespread contraction amid soaring energy and environmental costs, shifting global demand, and structural overcapacity. Dow plans to shut three sites across Germany and the UK, putting approximately 800 jobs at risk, while TotalEnergies will close its oldest Antwerp steam cracker by 2027.[26, 27] Vynova is halting PVC production in the Netherlands, and Sasol is winding down plants in both Germany and Italy.[28, 29] In the UK, SABIC is exiting its Teesside cracker.[30] PTT Chemicals' abrupt French plant closure disrupted supply chains, impacting Arkema.[31] LyondellBasell and Covestro are jointly closing facilities in Rotterdam.[32] Meanwhile, ExxonMobil is eyeing the divestment or even shutdown of its chemical plants in the UK (including Fife) and Belgium, and has already agreed to sell its French operations, signalling a potential exit from the region.[33] INEOS has also proposed the closure of its Gladbeck facility in Germany and its synthetic ethanol business in the UK.[34] Together, these closures and strategic exits underscore mounting pressure on Europe's chemical sector and undermine clusters across petrochemicals and specialty chemicals, forcing further increases in costs and closure.

24 SEMI, 2020. Fluorinated Chemicals Are Essential to Semiconductor Manufacturing and Innovation
25 OE calculations of emissions data derived from the Emissions Database for Global Atmospheric Research (EDGAR). Emissions data are only available for the chemicals and pharmaceutical sector. As the pharmaceuticals component of this sector is the less emissions-intensive portion, these estimates likely underestimate cross country emissions differences in the chemicals sector.
26 Dow, July 2025. Dow will shut down three upstream European assets in response to structural challenges in the region.
27 Total Energies, April 2025. Antwerp Platform Adapts to Energy Transition Challenges and Market Trends.
28 Vyonva, July 2025. Vynova announces intention to cease PVC production at Beek site.
29 Sasol, Capital Markets Day 2025. Script.
30 Chemistry World, July 2025. Two more European crackers to close.
31 Arkema, January 2025. Arkema announces a project to refocus the activity its Jarrie site in order to ensure its future following the cessation of its salt supply by Vencorex.
32 Covestro, March 2025. LyondellBasell and Covestro Announce Permanent Closure of PO11 Unit at Maasvlakte, Netherlands.
33 Financial Times, September 2025. ExxonMobil explores sale of European chemicals plants.
34 INEOS, June 2025. Uncompetitive European energy and carbon costs force INEOS Phenol to announce their intent to permanently close Gladbeck site in Germany INEOS, January 2025. Chemicals coming to an end in the UK.

POLICY LEVERS TO HALT EUROPE'S INDUSTRIAL DECLINE

Europe's chemical sector is suffering under the weight of a restrictive policy framework, record-high costs, and unfair global competition. Unless governments act now, the EU will lose a pillar of its industrial base—taking with it jobs, sovereignty and economic prosperity.

Rebalance climate cost: With carbon costs exceeding €75 per tonne under the EU ETS, Europe's energy-intensive producers are facing significant financial pressures. The gradual reduction of free allocations further intensifies these challenges. Restoring free allocations and reducing CO_2 pricing would provide immediate relief and buy time for investment in decarbonisation technologies like CCS and hydrogen.

Close the energy price gap: Europe's industry pays over double the electricity price of the US and China.[35]

Cutting taxes and levies on industrial energy and providing targeted relief could stem this tide. Without it, more sites risk closure because Europe is too expensive to operate in.

Defend against unfair imports: Imports from countries with weaker environmental rules and cheaper feedstocks are eroding Europe's market share. Russian gas, supplied to China at lower cost, is supporting chemical output that is then imported into European markets. This dynamic is making Europe increasingly dependent on imports for critical materials—undermining both energy security and industrial resilience. Targeted tariffs and well-designed carbon border measures will protect Europe's market share from competitors who are using subsidised or low-regulated energy.

> Many chemicals are essential to critical national infrastructure, meaning that increased import dependence would have significant implications for national security.

CONCLUSION

The evidence presented in this study shows that the European chemical industry is undergoing a severe and sustained contraction. Structural pressures, principally high energy costs, carbon costs, regulatory and permitting burdens, are eroding competitiveness relative to the United States, China, and the Middle East.

These factors have led to 40% of EU ethylene capacity facing closure. Once this capacity is closed, it is lost forever. Moreover, eight of the world's 10 largest chemical companies are scaling back or withdrawing from Europe, while all of the top 10 US producers are investing and expanding.

The sector's importance to the wider European economy is substantial. Chemicals account for roughly €0.7 trillion of annual output, making it the continent's fourth largest industrial sector. Together with pharmaceuticals, the combined sector is valued at €1.2 trillion second only to automotive (€1.3 trillion).

The risks associated with continued decline are considerable. Economically, Europe stands to lose a strategically important sector that underpins its industrial base. Strategically, greater reliance on imported chemicals raises questions of supply security and resilience, particularly as imports are increasingly sourced from regions benefitting from subsidised or sanctioned energy. Environmentally, relocating production to regions with higher emissions intensities will increase global carbon output, undermining the effectiveness of European climate policy.

In light of these findings, the outlook for Europe's chemical sector will depend heavily on policy choices: addressing energy cost differentials; recalibrating carbon pricing and regulatory frameworks; and ensuring a level playing field and fair competition. The chemicals sector in Europe and UK has reached a tipping point and without policy measures, the sector risks a permanent erosion of capacity, with lasting consequences for growth, employment, and strategic autonomy.

35 Business Europe, High Cost of Energy.

OXFORD ECONOMICS

September 2025

To discuss the report further please contact:

Andy Logan
alogan@oxfordeconomics
Oxford Economics
4 Millbank, London,
SWIP 3JA, UK
Tel: +44 (0)203 910 8000

www.oxfordeconomics.com

OXFORD ECONOMICS

CONTACT

Global headquarters
Oxford Economics Ltd
60 St Aldates, Oxford,
OX1 1ST, UK
Tel: +44 (0)1865 268900

London
4 Millbank, London,
SWIP 3JA, UK
Tel: +44 (0)203 910 8000

Frankfurt
Marienstr. 15
60329 Frankfurt am Main
Germany
Tel: +49 69 96 758 658

New York
5 Hanover Square,
8th Floor, New York
NY 10004, USA
Tel: +1 (646) 786 1879

Singapore
6 Battery Road
#38-05
Singapore 049909
Tel: +65 6850 0110

Email:
mailbox@oxfordeconomics.com

Website:
www.oxfordeconomics.com

Further contact details:
www.oxfordeconomics.com/about-us/worldwide-offices

10092-10-25